

U.S PATENT APPLICATION, H.A.L.O. HYBIRD™, GLEN FALCONER 03/30/03

To: Commissioner of Patents  
United States Patent & Trademark Office  
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Washington, DC 20231

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Sirs:

A few years ago I was granted Letters of Patent on three (3) of my "hand board" designs #D412195, D412352, and D412353. I'm sure you'll be pleased to hear that I haven't spent the last few years without further effort on the concepts. (I haven't been slacking off!). I have been diligently developing and perfecting my designs. Fact of the matter, I have made so much progress, I feel I have invented something worthwhile.

My quest for the perfect hand foil has caused me to spend literally thousands of hours and thousands of dollars attempting to remedy deficiencies in existing available options. Many days and nights have been spent trying to fix things that simply can't be fixed. As far as I can tell "The Powers That Be" seem to believe that "ventilated potato chip shapes" make the best propulsion systems. Furthermore, they seem to believe that securing a finger to the top side of a paddle with a rubber band or the like is a good way to go.

Which brings me to the reason I've decided to drop you a line at this time. You see, my work seems to be teaching away from both prior art as well as conventional thinking. Upon closer inspection you will find that my new hybrid designs comprise a generally ridged, rounded, flat planar member with an ergonomically correct cut-out grip, and an elasticized hand securement system, which offers the thumb, fingers, hand, wrist and arm a full and complete range of motion. Additionally, the improved cut-out grip is strategically positioned in such a way as to create and optimize the "weathervane" effect produced by the foil in motion. In other words, my hybrid invention is such a sweet design that comparing it to modern hand paddles seems a bit unfair, to illustrate:

1. Aquatically inclined enthusiasts find my new water engaging H.A.L.O. HYBIRD™ device quite handy for swimming, aquarobics, surfing, and play boating.
2. Aeronautically inclined enthusiasts find my new air engaging H.A.L.O. HYBIRD™ device quite handy for shredding clouds and generally playing with all the sky.
3. Terrestrially inclined enthusiasts find my new earth engaging H.A.L.O. HYBIRD™ device quite handy while chasing razor clams or digging snow caves.
4. Physically challenged individuals find my new H.A.L.O. HYBIRD™ designs quite handy with respect to recreational and rehabilitation pursuits.
5. Agricultural enthusiasts find my new organic mass engaging H.A.L.O. HYBIRD™ device quite handy for processing sugar cane, bananas, and coconuts.
6. Martial arts enthusiasts find my new organic engaging H.A.L.O. HYBIRD™ device quite handy for blocking, striking, grasping, deflecting and otherwise thwarting an advancing opponent.

7. Physical fitness enthusiasts find my new H.A.L.O. HYBIRD™ device quite handy for aerobic activities such as jogging, weight training and “T’ai-Chi”.

As you can see, the scope of my enhanced hybrid device seems somewhat boundless, and this includes discounting K9 chew toys!

Over the last couple of years, I’ve managed to combine the most desirable traits of my three patented designs into one “kickass” hybrid invention which has an ergonomically correct offset from center cut out gripping region with an infinitely adjustable releasably engaging securement system which is not only “self-truing”, but stable at speeds in excess of 120 mph!

To illustrate: My original design (D412353), is relatively large as far as hand paddles go. At approximately eleven (11) inches, it offers approx. 300% “additional” surface area to the naked hand. The board is secured to the hand by a number of short shock cords with “permanent knots and tassels” on each end. Included in this design is a safety cord with slider ball to prevent loss. In my opinion, an excellent design. No better product is available anywhere, at any price.

Originally developed to serve as a white water swimming paddle, this design has three minor drawbacks...

1. Firstly, the paddle offering approx. 300% additional surface area to a users hand is well suited to extreme athletes in good physical condition, it is however, poorly suited to the average “wannabee”. Additionally, no provision had been made to utilize the “secondary powerface”. It’s true the shock cord securement system encompassed the wrist while the hand gripped the paddle, still, the secondary powerface played a very small role in the overall performance of the paddle.
2. Secondly, the shock cord hand securement system is not adjustable and encompassed only the wrist without bridging the top of a users hand. Shock cord, by its nature, is forgiving and comfortable, however, expert feedback indicated that the paddle could be made more productive and more comfortable if the shock cord were adjustable and bridged the top of a users hand.
3. Thirdly, the ergonomically correct cut-out gripping region is relatively thick, wide and unpadded. The grip being better suited to the human hand than any other available swimming paddle, had not yet been perfected, nor had the “placement” of the grip within the paddle been perfected to optimize the self-truing “weathervane” feature.

In contrast, my current H.A.L.O. HYBIRD™ invention is considerably smaller, at approx. 9 inches. It offers approx. 200% additional surface area to the naked hand. This easier to manage size foil is secured to the hand by a “single long shock cord” that is “boot laced”, “completely adjustable”, and “tassel” free. The safety cord with slider ball is unnecessary and has been done away with. Also, “optional heart shaped abrasion pads” have been added to the ergonomically correct cut out grip for comfort. The grip itself has been “strategically positioned” in the foil to create and exploit a “weathervane effect” produced by the foil in motion. The design is really quite amazing. The faster they go the more predictable and powerful they become!!!! And because the thumb, hand, fingers and arm have a full range of motion, performing secondary tasks such as: adjusting goggles, pulling rip cords, handling secondary objects and assisting others, are easily accomplished, thereby multitasking secondary matter, a heretofore unrealized “most exalted” benefit.

Upon closer examination, I'm sure that you will find that my instant invention, known as H.A.L.O. HYBIRD™ is a newly designed and enhanced "hybird" hand held "multipurpose" utility device which encourages multitasking secondary matter.

Additionally, you will find that I have invented a new device which is: smaller, lighter, faster, more comfortable, more cost effective, better structured, better balanced, better looking, and more novel and amusing than any of my previously patented designs.

The enclosed invention reached this level of development (as discretely as possible) late in the summer of 2002 by coordinating feedback from local experts, whose disciplines include: skydiving, swimming, martial arts, white water kayaking, board surfing, agricultural and mountaineering persons here in the Pacific Northwest, U.S.A.

Because I alone have carried the burden of development, I alone am the sole inventor. As such, I have spent these last few winter months preparing this patent application to the best of my ability.

I have not sold, granted, bartered, or licensed any development rights for any of my patented designs or derivatives thereof, to any person or entity. I have however, as of November 2002 produced and sold a dozen units of my transitional H.A.L.O./ HYDRO (morph) design to a retail outlet in Portland, Oregon, thereby establishing partial public disclosure and interstate trade, this of course helps to fortify my copyrights, trademarks, existing patents and trade dress. The balance of my H.A.L.O. HYBIRD™ designs however, have remained "top secret" and "confidential". I intend to continue test marketing while you and your staff process this application and my copyright and Trademarks are registered.


I am currently fabricating my designs from wood, metal and plastic sheet material, shock cord, "hook and loop" like strap and "optional" adhesively attached leather and wetsuit type material abrasion pads. I am employing both hand tools and hand operated power tools, such as: drills, routers, sanders, hot knives, and files, which of course are common in most workshops. I feel however, that in order to become a truly viable commercial product, my new invention will require incorporating automated production techniques such as "die-cutting" and/or injection molding, which are the common methods in production manufacturing.

As you will see, I have invested much time and energy into this project. I have honestly and diligently observed the rules and "jumped through the hoops" to the best of my abilities. Most importantly, I've reduce to practice, a newly enhanced hybird hand held utility device and methods of multitasking secondary matter. Now I turn to you, the Commissioner of Patents, seeking your assistance in broadening, strengthening and fortifying my U.S. patent rights. I believe that the American economy will benefit quite handsomely from the introduction of my H.A.L.O. HYBIRD™ techknowledge. However, I am concerned that because this is my first attempt at a "real" patent, I may have unwittingly left a door open to unethical offshore interference by initiating partial public disclosure before filing foreign patent applications. Indeed

it would be unfortunate to find American manufacturers being forced to compete with off-shore interests here at home. As you review the materials before you, please try to keep an open mind, and give some thought to helping me preclude unethical circumnavigation on American soil. With this in mind, I trust you will look into this matter of importance at your earliest convenience. Please forward any necessary documentation you feel prudent, that I will complete and return for your further consideration.

I look forward to assisting your prosecution of my patent, and hope to discuss the potential of building the "mother of all patents" with you soon. In advance, let me thank you and your staff for your attention to this matter. I know you folks are pretty darn busy, however, I hope you can find time to help me give the world the "good paddling" it so richly deserves.

**Happy Trails, Tasty Waves and Blue Skys.....**

  
Glen Falconer  
3/30/3

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BACKGROUND OF THE INVENTION

The instant invention known as H.A.L.O. HYBIRD™ relates generally to hand held multipurpose utility devices which encourage multitasking secondary objects. And more generically to air engaging implements, water engaging implements, earth engaging implements, organic engaging implements, agricultural implements, martial arts implements, exercise implements, sporting goods, toys, hand tools, prosthetics and wind vanes, and provides various improvements over all known related products available in the world.

In the past, the need for human powered propulsion systems and or devices capable of manipulating fluid mass in general has caused many designers to contrive a considerable number of illconceived products which claim to produce desirable results...

To date their products provide little more than unsubstantiated, unverifiable claims eluding to: comfortable ease of use, enhanced mobility, speed, teach proper technique, reduce stresses to muscles, reduce energy expenditure, reduced pitch, yaw, wobble, oscillation, improve coordination, thought process, etc...

Such claims are paramount to asserting that a rollerskate secured to a users foot by way of a rubberband around the toes will teach proper walking technique, reduce both wobble and muscle strain while increasing blood flow to the toes, thus reducing risk of leg injury, and thereby substantially improve a users I.Q...

At the time of this writing, the inventor is unaware of any hand held device either in the prior art or currently available in the world that becomes an intuitive, integral extension of the hand, encourages multitasking secondary objects, or that produces logical and verifiable desirable results to either serious athletes or casual recreational users.

Therefore the current invention addresses the ongoing need for new and proven hand held tools capable of comfortably and efficiently multitasking fluid mass.

The inventor is aware of U.S. Pat. No's.:  
#D439299-Chaing-01', #5842896-Liveoak-98', #5511998-Johnson-96' and  
#4913418-Shueter-90' which generally relate to hand paddles

With regard to U.S. Pat.# 5842896-Liveoak-98':

Mr. Liveoak has developed a hand operated paddle which bares against the users hand and forearm effectively creating a "wrist splint" which eliminates a full range of motion and renders the device virtually useless to swimmers, skydivers, martial artists, kayakers, etc. Additionally, the device is constructed to be a "spoon paddle" with a positive rake and negative rake. Therefore by virtue of its design, the leading edge always digs, while the trailing edge always creates drag and turbulence. Also, the gripping region is ambidextrous and of relatively wide configuration and is not ergonomically correct in any way. Much like wearing a left shoe on the right foot, it is simply not very practical for any length of time. This of course reduces the potential of the thumb and fingers working cooperatively to perform any task other than gripping the device. Mr. Liveoak may elude to being able to grasp sticks and stones (although not in his claims) while employing his device, however, anyone (including myself) who has tried to make use of the Liveoak contraption can attest that his uncomfortable un-ergonomically correct "wrist splint" simply does not work as promised. Further exacerbating the undersirable deficiencies inherent to this design, Mr. Liveoak felt it prudent to add a neoprene type, sock like cover, which encompasses both the device and hand. This cover completely eliminates all potential for multitasking. Kayakers employing his device are unable to don helmets, adjust equipment, engage or disengage spray skirts, or liberate themselves from their trapped or submerged watercraft in an emergency situation. Fact of the matter is, that a person employing Mr. Liveoak's device will likely find him/herself presented with an opportunity to blow bubbles for the rest of their lives!

With regard to said U.S. Pat.# D439299-Chaing-01', #4913418-Shueter-90' and  
#5511998-Johnson-96':

Each of these respective designs is structed to resemble an oversized, ventilated plastic potato chip, which is secured to the palm of a users hand by way of surgical tubing wrist and finger bands. Additionally, they are all provided with wrist relief detents which bite into the wrist with every stroke.

Much like all other prior art swimming paddles, their specifications, structures, applications and claims read on each other to the extent that they all elude to: teaching proper technique, reduce injuries, reduce oscillation and wobble, enhance mobility, and of course provide a better feel of water flow.

As a retired lifeguard/swim coach, I can assure you that these "spud paddles" are about as effective as a "damp cloth" to aquatic enthusiasts. Simple tasks such as adjusting goggles and bathing suits are virtually impossible while a users hands are stuck to these uncomfortable contraptions.

The inventor is also aware of U.S. Pat. No's:  
#6325747-Norblom-01', #5501649-Queppet-96', #D420413-Gonzalez-00' and  
#6036602-Abbott-00' which generally relate to martial arts devices.

Each of these respective designs is structured to be a heavily padded sparring and training device. Each design is intended to offer users a "safe" and "pain free", full contact training opportunity. In contrast, my H.A.L.O. HYBIRD™ device, being provided with a sharpenable edge, is not intended to be limited to safe or pain free sparring exercises, (if there is such a thing). Instead my H.A.L.O. HYBIRD™ device is better suited to highly skilled martial artist requiring an offensive defense capability. For example; highly skilled martial artists employing cleaving puching techniques can efficiently liberate an attackers appendages expeditiously. And because my H.A.L.O. HYBIRD™ device allows the thumbs and fingers to work cooperatively, grasping, grappeling and joint locking techniques are also available options heretofore unrealized with any other hand held device.

The inventor is also aware of U.S. Pat. No's:  
#3964697-Mays-76', #3969772-Pravaz-76', #6146292-Yamanaka-00' and #6368112-Mason-02'  
which generally relate to skydiving devices.

The devices of Pravaz, Yamanaka, and Mason do not directly relate to hand held fluid mass manipulating implements and are intended merely to illustrate U.S. and International class and subclassification of skydiving devices,

The device of Mays however is an illconceived attempt to manipulate fluid mass and therefore generically illustrates my invention. The Mays device is a ludicrous contraption resembling an Icarus wing which is intended to straddle a canopy container employed by a parachutists. The notion that a patent was issued regarding this device speaks to the fact that not all patent examiners are "grumpy old men", and clearly illustrates that some examiners have a considerable sense of humor. Even if the Mays contraption were reduced to practice, and even if the device didn't prohibit reliable deployment of a parachute, the combined surface area of the wing is so great that persons such as Arnold Schwarzeneggar would be unable to control the device to any desirable benefit. The Mays contraption is certainly obsolete, it does however serve to illustrate mankind's timeless desire to better control his/her relative space.

In contrast, skydivers employing my H.A.L.O. HYBIRD™ device are consistently clocking speeds in excess of 120 mph! Additionally, before deploying their canopies, skydivers are able to more crisply execute freeflying maneuvers such as back flips, pirouettes, cartwheels, barrel rolls, head stands and corkscrews. And because the H.A.L.O. HYBIRD™ device encourages the thumbs and fingers to work cooperatively, operating parachute control systems is easily accomplished upon deployment, without the need of disengaging the hand from the device.

The inventor is also aware of U.S. Pat. No's:  
#D255137-Bowen-80', #4324400-Tse-82', #5139258-McPoyle-92' and #623494-Mizeracki-01'  
which generally relate to sporting rackets.

The aforementioned devices appear to be well thought out designs, with the exception of the McPoyle device, which employs a hinged pivot between the handle and blade. Essentially, McPoyle has developed a "rubber crutch" that looks like a ping pong paddle. Apparently, a person with poor skills is supposed to persuade a person with strong skills to use this silly contraption during competition, thereby leveling the proverbial playing field. (the term "kook" springs to mind!).

In contrast, my H.A.L.O. HYBIRD'S™ device offers racketeer's some new ways to play with their balls. And because H.A.L.O. HYBIRD'S™ encourage the fingers and thumb to work cooperatively, ball handlers can take paddling to the next logical level of play. H.A.L.O. HYBIRD'S™ intuitively orient themselves in a natural hand shake fashion which translates into a natural, comfortable, powerful swing, forehand, backhand, overhead, sidearm and scoop.

The inventor is also aware of U.S. Pat. No's:  
#4351525-Rosenblad-82', #4585228-Olson-86', #5358463-Fuentes-94' and #5530967-Cielo-96'  
which generally relate to exercise weights.

Each of the aforementioned implements as well as all known prior art devices have been developed with little or no artistic flair or style. Additionally, ergonomics and creature comfort do not appear to play much of a roll with respect to exercise equipment. Most known related equipment tends to be awkward, unsightly and uncomfortable to use. The aforementioned devices do however serve to illustrate mankind's desire to train with free weights as physical fitness is in mind. In contrast, H.A.L.O. HYBIRD'S™ are beautifully appointed, handsomely adorned, extremely comfortable, perfectly balanced and optionally fabricated from heavy molecular weight material which is easily provided with non-abrasive colorful coatings.

Therefore, H.A.L.O. HYBIRD'S™ are well suited to T'ai-Chi, aerobics, jogging and martial arts kata because they offer a full range of well balanced motion in an often unbalanced world.

The inventor is also aware of U.S. Pat. No's:  
#6464272-Michaud-02', #6446368-Watts-02', #5678873-Robinson-97',  
#6113168-St Jear-00' which generally relate to earth engaging implements.

Each of the aforementioned inventions appear to be reasonably well thought out designs which are likely to be capable of performing their intended tasks. However, as with all known prior art earth engaging implements, none are designed to become an intuitive integral extension of the human hand. Additionally, no known spade or shovel allows simultaneously performing more than one task at a time. For example; classifying clams from sand and gravel, or seperating bulbs from potting soil, without the need to disengage the hand from the tool. Never before has it been possible for a person to "don" a shovel or otherwise "wear" a spade while multitasking secondary matter.

The inventor is also aware of U.S. Pat. No's:  
#4378670-Check-83', #5359840-Costar-94', #5609012-Anthes-97' and  
#5937627-McKittrick-99' which generally relate to gardening implements.

There appears to be no shortage of garden tools in the world. As with all known prior art, the aforementioned implements generally endeavor to create a device which resembles a "wrist splint" or "finger trap" that effectively eliminates a full range of motion. Furthermore, no known garden implement retains its orientation to a users hand while the fingers and thumb work cooperatively to multitask secondary objects. Most garden tools simply fall to the ground if a user loosens his/her grip while performing a single task.

The inventor is also aware of U.S. Pat. No's:  
#D348380-Allen-94', #3839788-Addis-74', #6378745-DeLuccia-02' and  
#4087911-Schrock-78' which generally relate to hand knives and cleavers.

A wide variety of tools have been proposed for use as knives and weapons, as well as for various industrial and agricultural implements. Each of the aforementioned inventions appear to be well suited to their intended tasks, with the exception of the DeLuccia device, which provides a hand mounted holster.

The holster being provided with a folding knife receiving pocket, which requires the use of both hands to deploy and install the knife into the "palm pocket", which is essentially a knife receiving sleeve. Additionally, no provision has been made to retain the knife in position within the sleeve once installed therein. In other words, a person employing this device and intending to engage in mortal combat will find it necessary to politely request his/her opponent to essentially "stand by" while I open my tiny knife, install it in my palm pocket, and form a white knuckle death grip to retain the knife in position. Additionally, if the white knuckle death grip is relaxed or released for any reason, the tiny folding knife will certainly liberate itself from the confines of its sleeve and offer its services to the opponent, who in turn will likely lodge the tiny knife in the proximity of the initial users rectal cavity where it belongs.

In contrast, persons employing my H.A.L.O. HYBIRD™ device find no necessity in gripping the device in any particular manner whatsoever. The H.A.L.O. HYBIRD™ device by virtue of its design, intuitively retains itself within and about a users hand without the need of conscious thought by a user. And because the H.A.L.O. HYBIRD™ device encourages the thumb and fingers to work cooperatively, agriculturally inclined enthusiasts can for example, climb trees and in a chopping and cleaving fashion, liberate desirable food products such as bananas and coconuts without the need to sheath and unsheath a device.

The inventor is also aware of U.S. Pat No's:  
#4080826-Perretta-78', #4522069-Birnbaum-85', #4656770-Nuttle-87' and  
#D391875-Frontz-98' which generally relate to wind vanes.

The aforementioned, as well as all known prior art, no known wind vane has ever been adapted to govern a hand held multitasking device. The H.A.L.O. HYBIRD™ device, by virtue of its design incorporates many features and principles employed by wind vanes. The H.A.L.O. HYBIRD™ device is the only known hand held device which "trues" itself with respect to the

fluid mass presented to it. The H.A.L.O. HYBIRD™ device intuitively “trues” itself in air, water, earth, agricultural and organic stratum. Conscious thought by a user is necessary to overcome the biased wind vane tendency of the device. Of course the strength of the wind vane tendency can be varied from a manufacturing point by adjusting the combined center of gravity, peripheral profile, surface area and vortacie producing texture. The user as well can vary said tendency by selecting appropriate velocity, thrust and momentum with respect to the chosen stratum.

The inventor is also aware of U.S. Pat. No's:

#D386372-Weiss-97', #4324018-Olsson-82', #D312379-Cassab-90' and #5956799-Panaccione-99' which generally relate to putty knives and scrapers.

As with all known prior art, none of the aforementioned implements are designed to become an intuitive integral extension of the human hand. Often tradesman are called upon to climb ladders and scaffolding or hang from a boatswain chair to perform tasks involving putty knives and scrapers. Climbing ladders and repelling boatswain chairs with H.A.L.O. HYBIRD's™ engaged is as simple as climbing and repelling without. And because H.A.L.O. HYBIRD's™ intuitively orient themselves to the hand, the liklihood of dropping one is virtually eliminated, which of course substantially reduces injuries suffered by coworkers tasking below.

The inventor is also aware of U.S. Pat. No's:

#D305296-Nelson-90', #4180110-Tauscher-79', #4265285-Fodor-81' and #6357112-Bachta-02' which generally relate to hand saws.

Each of the aforementioned inventions appear to be reasonably well thought out designs which are likely to be capable of performing their intended tasks. However, as with all kown prior art, none is designed to become an intuitive integral extension of the human hand. Additionally, no known hand saw retains its orientation to the hand after the hand releases its grip to the saw. While employing H.A.L.O. HYBIRD's™, both lumberjacks and tradesman can climb trees and ladders and perform their duties without the neccesity of climbing like a pirate holding a knife in his/her teeth.

The inventor is also aware of U.S. Pat. No's:

#3581740-Sherbourne-71', #3942194-Winter-76', #4907574-Hollerbach-90' and #5464444-Farquharson-95' which generally relate to medical prosthetic and rehabilitation devices.

In prosthetic devices for attachment to a forearm stump or to the hand of a person whose fingers and hands are partially or wholly paralyzed, attention generally has been paid to attempts to duplicate in one or more particulars the mechanics of a human hand. Unfortunately, little or no effort has been directed to the alleviation of the plight of aquatically inclined amputees and persons with severely restricted hand functions who wish to participate in aquatic activities such as swimming, canoeing, float tubing, aquarobics and hydrotherapy. To date no known device has been offered to handicapped persons with respect to these areas of interes. In contrast, the H.A.L.O. HYBIRD™ device encourages such persons to participate in activities such as swimming, gardening, boating, table tennis and tradesmen pursuits.

The inventor is also aware of U.S. Pat. No's. #6131222-Anderson-00', #5829082-Moreira-98', #D286501-Magan-86' and #4546510-Harrison-85' which generally relate to multipurpose hand tools.

Each of the aforementioned inventions appear to be well thought out, well designed tools capable of performing a multitude of tasks... The exception being the Harrison device... The Harrison device being a gift from a friend who'd been unable to realize any benefit from the device, felt that because I often "tinker with things until they work", might find some use for the "second hand gift".

After repeatedly lacerating my fingers while chopping kindling for campfires with this device, I managed to destroy a multitude of heavy leather gloves with this illconceived evil contraption. No matter how many times I "fixed" the sheath/handle, it always wobbled, slipped and generally flopped around uncontrollably. Eventually I wrapped the knife blade with a piece of a destroyed leather glove and encased the knife blade/sheath configuration with many rounds of electrical tape. This worked for a while, until I decided to simply pack a standard hatchet on my camping trips. Ultimately, I ended up smashing the Harrison contraption repeatedly with a 5 lb. sledge hammer before dispatching it in the general direction of my local landfill.

The inventor is also aware of U.S. Pat. No's. #23901-Howe-94', #26061-Sykes-96', #982351-Cree & Davis-11' and #1199987-Husted-16' which generally relate to plates and patens.

Plates, trays and patens have been historically employed by Christian, Catholic and some Protestant clergy, to facilitate transportation and distribution of Eucharistic bread and wine during religious sacrament of communion ceremonies.

Most patens are fanciful, ornate and traditionally fabricated of heavy precious minerals such as gold, silver, brass and copper. To date no known paten has been designed or developed to resemble a simple halo that is an intuitive, integral, extension of the hand.

With respect to the other aforementioned inventions, as well as all known prior art, none are designed to be well balanced, multipurpose, intuitive, integral extensions of the human hand which is capable of manipulating elementary fluid mass and multitasking secondary matter.

With the above deficiencies in mind, I submit the following objectives of my invention for your consideration.

## SUMMARY OF THE INVENTION

It is the object of the H.A.L.O. HYBIRD™ invention to provide an amusing utility device which:

1. is air engaging.
2. is water engaging.
3. is earth engaging.
4. has agricultural applications.
5. has physical fitness applications.
6. has physical therapy applications.
7. has martial arts applications.
8. has sporting goods applications.
9. offers playful amusement.
10. has clinical rehabilitation applications.
11. is easily adaptable as a medical prosthesis.
12. is a highly visible signaling device.
13. is capable of manipulating fluid mass.
14. provides powerful and predictable propulsive force.
15. is "self-truing" in a "weathervane" fashion.
16. generates vorticies advantageously.
17. is stable at speeds in excess of 120 mph.
18. offers comfortable ease of use.
19. is versatile and offers multiple uses.
20. provides variant profiles to accommodate various uses.
21. is adjustable to accommodate various users.
22. utilizes available materials and is readily manufacturable.
23. becomes an intuitive integral extension of the hand.
24. encourages multitasking secondary matter.
25. is relatively light in weight and can be quickly maneuvered.
26. is constructed of sufficient structural integrity to withstand rugged use.
27. is fabricated from a desirable composite of different materials.
28. is optionally fabricated of dense, heavy molecular weight material to serve as an exercise device.
29. center of gravity can be veried during manufacture to be suitable for any number of applications.
30. provides a cutting, cleaving, scraping, sawing and chiseling blade integrally formed with an ergonomically correct handle.
31. is provided with a sharpenable edge.
32. is provided with variant sawtooth configurations.
33. is provided with variant degrees of edge temper.
34. is provided with various surface laminates, coatings and ornamentation.
35. is easily provided with a rubber band biased foam rubber ball (similiar to a childs paddle ball toy).
36. provides logical and verifiable desirable results.
37. provides a novel and amusing conversation piece.

With the above and other objects in view, my invention consists in the novel construction, combination and arrangement of components heretofore and hereinafter illustrated, described, disclosed and claimed.

The instant invention known as H.A.L.O. HYBIRD™ speaks of an enhanced hand held multipurpose utility device used primarily to manipulate fluid mass and multitask secondary matter. This new and novel device presents various enhancements over all related products, either commercially available or in known prior art. This newly designed device enables users to have more than one choice of applications and offers the opportunity to perform multiple tasks simultaneously, to illustrate:

1. Skydivers employing this device are able to more crisply execute maneuvers such as back flips, pirouettes, barrel rolls, cork screws, cartwheels, etc. while utilizing this device in a “trim tab” or “airbreak” fashion, a skydiver can better play with all the sky before deploying a parachute. And because this device encourages the fingers and thumb to work cooperatively, there is no need to disengage the device in order to pull a ripcord or work parachute steering toggles, thereby multitasking while manipulating fluid mass and effectively enhancing the “fun factor”.
2. Another novel aspect of this device relates to swimmers, lifeguards for example can run, jump, dive and swim, both on the surface and underwater at speeds and with power similar to that achieved with swim fins. And because this device encourages the fingers and thumbs to work cooperatively, a lifeguard can handle lines, retrieve equipment, and of course assist distressed persons, without the need to disengage the device, thereby multitasking while manipulating fluid mass and increasing the safety factor.
3. Additionally, white water playboaters employing this device find that they have “posi-traction” like performance, both on a rivers surface, as well as below a rivers surface, and can essentially “fly” their craft downstream and underwater without the bother of trying to utilize one end of a standard kayak paddle, while both ends are connected and submerged simultaneously. And because the thumbs and fingers are encouraged to work cooperatively, submerged “Squirt Boaters” for example, (occasionally) are able to pluck skipping stones from the submerged stream bed as they maneuver along, “a trophy heretofore unrealized”, thereby multitasking while manipulating fluid mass and substantially enhancing the “fun factor”.
4. Another novel aspect of this device relates to “board surfers” wanting to more efficiently accelerate their surf boards into position and ultimately catch more waves. Board surfers employing my H.A.L.O. HYBIRD™ device find that they are better equipped to compete with performance oriented kayaks in the surf zone. More than just a surfing safari tool, the H.A.L.O. HYBIRD™ device offers “posi-traction” like performance to “board surfers” wanting to take their sport to the next level of play. And because the hand has a full range of motion, a surfer can grab his/her surfboard, tuck the board under his/her arm, run down the beach, launch into breaking surf and paddle out past the break with heretofore unrealized power and speed. The H.A.L.O. HYBIRD™ device is lightweight, optionally slightly buoyant, extremely durable and easily stowed to a fanny pack equipped with a simple hook and loop fastening strap.

Additionally, the H.A.L.O. HYBIRD™ device is quite handy for cracking crab legs and digging razor clams. This truly is a “wet dream” come true which is long overdue!!!

5. Another novel aspect of this device relates to search and rescue mountaineering enthusiast. Such persons employing this device are able to tunnel into snowbanks, either to create temporary shelter or to retrieve lost persons. And because the device may be distributed in pairs, a user is able to dig with both hands simultaneously and on any plane, or combination of planes presented in a fashion similar to the techniques employed by K-9's. And because H.A.L.O. HYBIRD's™ are provided with a wide variety of size, shape, configuration, peripheral and planar profile, edge profile and temper, they are well suited to any number of earth engaging applications. The H.A.L.O. HYBIRD™ device is lightweight, conveniently stowed and so well suited to digging that even clam digging enthusiasts are able to loosen earth to the extent that clams can easily be classified from sand and gravel in order to bucket the clams for chowder stock without the need of disengaging the device, thereby multitasking while manipulating fluid mass, which of course causes no small measure of concern to the illustrious geoduck.

6. Another novel aspect of this device relates to knives and cleavers. The H.A.L.O. HYBIRD™ device being provided with a wide variety of size, shape, configuration, peripheral profile, edge profile, temper, and a sharpenable edge serves professional agricultural enthusiasts quite well. For example, harvesters and processors of cocoa nuts and bananas are often called upon to climb trees and cleave loose desirable foods and bi-products. Such persons traditionally employing a machete or sickle which needs to be sheathed and unsheathed both before and after climbing. This of course is distracting and awkward. In contrast, climbing trees with H.A.L.O. HYBIRD's™ engaged is as simple as climbing without. And if a branch needs to be trimmed, all a user need do is reach out and in a “chopping fashion” liberate said branch. Additionally, sugar cane processors find utilizing this device to be quite productive, as both hands can work cooperatively, simultaneously grasping and chopping in an ambidextrous fashion, thereby multitasking fluid mass methodically.

7. Another novel aspect of this device relates to aquarobic, hydrotherapy and physical fitness enthusiast. Such persons have found that water's buoyant supportive cushion combined with its inherent omni-directional resistance provides the perfect antigravity environment for low-impact activities that are good for the whole body. Virtually everyone employing H.A.L.O. HYBIRD's™ can comfortably improve their range of motion, increase circulation, strengthen muscles, maximize flexibility and reduce “granny flaps”, by suspending weight bearing joints in an aquatic environment. Aquatic exercise also allows a person to sharpen his/her “competitive edge” while reducing the likelihood of overheating and fatigue, which are usually associated with land based exercise. More than just a rehabilitation tool, the H.A.L.O. HYBIRD™ device speaks to serious and elite athletes. Ironman Olympic hopefuls for example, training with this device should expect to build upper body strength, stamina, endurance and aerobic capacity, while significantly improving mobility and their ability to multitask fluid mass.

8. Another novel aspect of this device relates to martial arts enthusiasts. Employing H.A.L.O. HYBIRD's™, a martial artist is more able to block, strike, grasp, deflect and otherwise thwart the advance of an opponent. And because the device offers a measure of shielding

protection while allowing the fingers and thumbs to work cooperatively, a martial artist is more able to manipulate the fluid mass that comprises an opponent, thereby multitasking and enhancing the “success factor”.

9. Another novel aspect of this device relates to sporting rackets. Table tennis enthusiasts for example find that H.A.L.O. HYBIRD's™ offer racketeers some new ways to play with their balls. The device offers an opportunity to engage a hand paddle in a natural “hand shake” fashion heretofore unrealized. This of course translates into a natural, comfortable, powerful swing that stings the ball and sends it screaming, accurately and precisely on all planes and combination of planes presented. And because H.A.L.O. HYBIRD's™ are provided fabricated of various materials with various size, shape, configuration, weights and characteristics, they are well suited to virtually all players, skill levels and styles of play. And because the device releasably secures itself to a users hand, spectators no longer need worry about dodging high speed projectile paddles which have liberated themselves from a players grip. Additionally, H.A.L.O. HYBIRDS's™ complement virtually every known forehand, backhand, overhead, sidearm, scoop, shave and spin technique. Also, for amusement purposes, a rubber band biased foam rubber ball may be affixed to a H.A.L.O. HYBIRD™ in such a manner as to be used in a “paddle-ball” fashion much like common childrens toys where the ball returns intuitively to the paddle to be spanked again and again without contacting secondary stratum.

10. Another novel aspect of this device relates to exercise weights. Physical fitness enthusiasts for example often employ “free weights” while exercising. Both professional athletes, Olympic hopefuls and casual “wannabees” can be found incorporating small “dumb bells” and “strap on weights” into their usual routines. To date, most such devices are awkward, uncomfortable, unbalanced and unattractive. In contrast, H.A.L.O. HYBIRD's™ are beautifully appointed, handsomely adorned, extremely comfortable, perfectly balanced and “optionally” fabricated of heavy molecular weight materials which are easily provided with non abrasive colorful coatings. And because H.A.L.O. HYBIRD's™ are provided with various sizes, shapes, configurations, colors and in various weight ranges they are well suited to pursuits such as jogging, aerobics, T'ai-Chi, Tae'-Bo and various martial arts kata. And because H.A.L.O. HYBIRD's™ offer a full range of well balanced motion they lend themselves quite well to an often constricted unbalanced world.

11. Another novel aspect of this device relates to gardening implements. While it's true that there appears to be no shortage of garden tools in the world, it is equally true that none are designed from the start to be perfectly balanced, intuitive integral extensions of the hand. And because H.A.L.O. HYBIRDS's™ are provided with various size, shape, configuration, planar profile and edge temper, gardeners are now able to employ ergonomically correct tools which encourage multitasking various matter. Edging turf, planting flowers, airating soil, collecting leaves and twigs from planting beds and depositing same into compost bins. Classifying bulbs from potting soils and collecting tubers, mixing compost and organic type fertilizer with peat moss and soil, digging weeds and cutting roots, raking and hoeing are all tasks which are easily and efficiently done while wearing H.A.L.O. HYBIRD's™. Additionally, every gardener knows, that there is no greater marriage than hand to tool!!!

12. Another novel aspect of this device relates to wind vanes. To date no known hand held device has been designed from the start to be governed by wind vane features and principals. The H.A.L.O. HYBIRD™ device is the only known hand held multitasking tool which “trues” itself in air, water, earth, organic and agricultural stratum. “Conscious thought” by a user is usually necessary to overcome the biased wind vane tendency of the device. Of course the strength of the wind vane tendency can be varied from a manufacturing point by adjusting the combined center of gravity, peripheral and planar profile, surface area and vortacie producing texture. The user as well can vary said tendency by selecting appropriate velocities, thrust and momentum with respect to the chosen stratum.

13. Another novel aspect of this design relates to putty knives and scrapers. Often tradesman are called upon to climb ladders and scaffolding or hang from boatswain chairs to perform tasks involving putty knives and scrapers. To date no known such implement is designed to become an intuitive integral extension of the hand. Tradesmen find that climbing ladders and repelling boatswain chairs with H.A.L.O. HYBIRDS’S™ engaged is as simple as climbing and repelling without. And because H.A.L.O. HYBIRD’S™ intuitively orient themselves to the hand, the liklihood of dropping one during use is virtually eliminated, which of course substantially reduces injuries suffered by co-workers tasking below. And because H.A.L.O. HYBIRD’S™ are provided in a variety of sizes, shapes configurations and tempers, tradesmen have wide range of choices regarding tools and applications.

14. Another novel aspect of this device relates to hand saws. While employing H.A.L.O. HYBIRD’S™ lumberjacks, tradesmen, hobbieists, and back packers can climb trees, ladders, scaffolds, logjams, mountains and trails. And upon arriving at an obstical, desired location or work station, can effectively, efficiently and safely saw, cut or trim logs, branches, roots, lumber, sheet material, pipe, conduit, barstock, flatstock, etc.

And because H.A.L.O. HYBIRD’S™ are provided in a wide variety of common sizes, shapes configurations and edge tempers, the number of applications is virtually unlimited. And because H.A.L.O. HYBIRD’S™ intuitively orient themselves to both hand and stratum, a person can cut on virtually any plane or combination of planes presented. Additionally, most H.A.L.O. HYBIRD™ hand saws are provided with a KutKeeper™ configuration which resembles an oversized tooth or barb at the ends of the saw blade which helps prevent the blade from becoming dislodged during the cutting stroke.

15. Another novel aspect of this device relates to medical and rehabilitative prosthesis. In the past, a considerable number of prosthetic implements have been devised for attachment to the end of of a prothesis, most of which resemble “hooks” and “claws”. Some however, facilitate attachment of implements such as hammers, knives, screw drivers, etc. with their focus generally being land based utilitarian persuits. To date, little attention has been paid to aquatic activities such as swimming, canoeing, float tubing, aquarobics, etc. which are generally viewed as recreational persuits that are of course good for the spirit and soul as well as the body.

The H.A.L.O. HYBIRD™ device being readily adaptable is easily affixed to prosthetic devices attached to the forearm stump of an amputee. This of course opens the door to a wide range of recreational and sporting persuits heretofore unrealized. And because H.A.L.O. HYBIRDS’S™ are available in a wide variety if configurations such as: hand tools, sporting

rackets and gardening implements, they are not limited solely to aquatic pursuits, but equally well suited to many varied hobbiests and tradesmen.

Additionally, persons who have not suffered amputation, but have limited use of their fingers and hands can benefit from H.A.L.O. HYBIRD'S™ as well. For example: persons suffering from ailments such as: arthritic contracture, carpal tunnel, neuro-musculature disease, fractured bones, re-attached muscles and tendons, etc. understand that moving and flexing the muscles, joints and bones of an affected limb is a necessary part of the rehabilitation process. Without movement, the muscles, ligaments, and joints often tend to continue to contract and deteriorate, thereby curling the fingers and bending the bones. Persons incorporating H.A.L.O. HYBIRD'S™ into their rehabilitation program should expect to play an active role in the rehabilitation process. H.A.L.O. HYBIRD'S™ enable people to work solo and at their own pace, in the comfort of their own familiar hot tubs, pools, lakes and beaches, by gently pushing, pulling and sculling in an infinite number of directions against waters inherent omni-directional bouyant resistance. H.A.L.O. HYBIRD'S™ are removably affixed intuitively in position by resilient flexible elastisized straps for frictional retention and proper orientation with respect to a wearers hand. The elastically biased straps are infinitely adjustable and bridge across the top of the fingers and hand while encompassing the wrist. Thereby gently pressing the fingers and hand into a natural "hand shake" configuration within and about the device. The fingers may be either "splay'd" out across the surface of the device or passed through the device in a gripping fashion. By "splaying" the fingers across the surface of the device, a wearer will realize the benefit of the strap gently pressing the fingers into a generally straightened position, thereby stretching affected muscles, tendons, ligaments and joints. And by pressing the device through aquatic matter perpendicularly, flexure of the wrist and hand is augmented advantageously.

Physically challenged individuals employing H.A.L.O. HYBIRD'S™ in a conventional manner, find that they have substantially similiar agility and effectiveness in an aquatic environment, much the same as a person without a handicap has.

In other words, H.A.L.O. HYBIRD'S™ enable people with physical challenges to resume an active lifestyle by taking a pro-active role in their own rehabilitation. With practice, persistance and perserverance, a person who has a "Winners Never Quit/Quitters Never Win" attitude, may in relatively short order, find him/herself able to catch a "tasty wave", "shred a grey cloud" and otherwise give an opponent a well deserved "good paddling"!

16. Another novel aspect of this device relates to plates and patens. Patens have historically been employed by Christian, Catholic and some Protestant clergymen to facilitate transportation and distribution of Eucharistic bread and wine during religious sacrament of communion ceremonies.

Most patens are fanciful, ornately decorated and traditionally fabricated of heavy precious minerals such as gold, silver, brass and copper. Gold and gold plated patens traditionally being used during "high ranking" ceremonies, while silver, brass and copper are generally employed for most common day to day ceremonies.

In contrast, much like the "Holy Grail", H.A.L.O. HYBIRD'S™ are not fabricated from precious metals or plated with same. H.A.L.O. HYBIRD'S™ are "optionally" fabricated from common, inexpensive, translucent and transparent plastic materials that resemble a "halo", and which subliminally convey the message that "our daily bread" is at least in part, provided by a "higher power".

17. Because the field of aerodynamics leads in the study and development of foil technologies, a majority of embodiments in the above disclosure are discussed in the context of airfoils and hydrofoils. However, the fundamental methodologies, benefits and or specific design features discussed in the above description are intended to be applicable to all foil type devices used in all fluid mass and fluid-like mediums. These mediums include air, water, earth, organic agricultural, natural and synthetic mediums. Additionally, this invention speaks to the advancement of tools, toys, implements and devices which encourage the multitasking of secondary matter, a heretofore unrealized exalted benefit.

## DETAILED DESCRIPTION OF CURRENT PREFERRED EMBODYMENTS

- Fig. 1 is a left and right side elevational view of my H.A.L.O. HYBIRD™ device showing an unassembled condition with an aperture bifurcating the peripheral edge.
- Fig. 2 is a bottom and top plan view of Fig. #1, with a plurality of irregularly shaped apertures forming an ergonomically correct gripping region and a plurality of apertures arrayed in proximity of said gripping region.
- Fig. 3 is a side elevational view of Fig. #4.
- Fig. 4 is a bottom and top plan view of my H.A.L.O. device in an assembled condition with adjustable, releasable cord member being threadably affixed as detailed in claim #3, and with “optional” adhesively attached heart shaped abrasion pads.
- Fig. 5 is a top plan view of the cord member with a knot near each end.
- Fig. 6 is a top plan view of an optional heart shaped abrasion pad.
- Fig. 7 is a top plan view of Fig. #4, illustration of use, with phantom hand resting on secondary power face.
- Fig. 8 is a bottom plan view of Fig. #4, illustration of use, with phantom thumb resting on primary power face.
- Fig. 9 is an unassembled top plan view of device components comprising:
- 9a is the primary power face.
  - 9b is the secondary power face.
  - 9c is the leading edge.
  - 9d is the peripheral edge.
  - 9e is the trailing edge.
  - 9f is the four finger receiving aperture.
  - 9g is the center balance point.
  - 9h is a plurality of (optional) vortacie producing apertures.
  - 9i is the ergonomically correct gripping region.
  - 9j is the hand receiving aperture bifurcating the peripheral edge.
  - 9k is the plurality of cord receiving apertures.
- Fig.10 is a top plan view mirror image illustration of preferred cord member routing schematic encompassing claim #3.
- Fig.11 is an unassembled top plan view of device components comprising:
- 11a is the primary power face.
  - 11b is the secondary power face.

- 11c is the leading edge.
- 11d is the peripheral edge.
- 11e is the trailing edge.
- 11f is the fore finger receiving aperture.
- 11g is the center balance point.
- 11h is a plurality of (optional) vortacie producing apertures.
- 11i is the ergonomically correct gripping region.
- 11j is the hand receiving aperture bifurcating the peripheral edge.
- 11k is a plurality of strap receiving apertures.

Fig.12 is a top plan view mirror image illustration of preferred strap member routing schematic encompassing claim #5.

Fig.13 is a left and right side elevational view of my H.A.L.O. HYBIRD™ device showing an unassembled condition with an aperture bifurcating the peripheral edge.

Fig. 14 is a bottom and top plan view of Fig. #1, with a plurality of irregularly shaped apertures forming an ergonomically correct gripping region and a plurality of apertures arrayed in proximity of said gripping region.

Fig. 15 is a side elevational view of Fig. #16.

Fig. 16 is a bottom and top plan view of my H.A.L.O. device in an unassembled condition with adjustable, releasable strap member being threadably affixed as detailed in claim #5, and provided with “optional” adhesively attached heart shaped abrasion pads.

Fig. 17 is a side elevational perspective view of the strap member.

Fig. 18 is a top plan view of the “optional” heart shaped abrasion pad.

Fig. 19 is a top plan view of Fig. #16, illustration of use, with phantom hand resting on secondary power face.

Fig. 20 is a bottom plan view of Fig. #16, illustration of use, with phantom thumb resting on primary power face.

Fig. 21 is top plan views of current unassembled H.A.L.O. HYBIRD™ planar member configurations comprising:

- 21a HALO-HYDRO™ (rounded with radius edge).
- 21b HILO-HALO™ (rounded with “optional” vortacie producing apertures and both a radius edge and a sharpenable edge).
- 21c HALO-HYDRO-WHITEWATER-MARINE™ (rounded, with hook and loop securement system and a radius edge).

- 21d HALO-COASTER <sup>TM</sup> (teardrop, with a radius edge).
- 21e HALO-FORKIT <sup>TM</sup> (forked, with both a radius edge and a sharpenable edge).
- 21f HALO-EDGEMASTER <sup>TM</sup> (spade, with both a radius edge and a sharpenable edge).
- 21g HALO-SCRAPPER <sup>TM</sup> (squared, with a radius edge, a serrated edge and a sharpenable edge).
- 21h HALO-RACKETEER <sup>TM</sup> (oblong, with hook and loop securement system, a radius edge and “phantom” foam rubber like pad adhesively attached).
- 21i HALO-MAKO <sup>TM</sup> (triangular, hand saw with KUTKEEPER <sup>TM</sup> feature and a sharpenable edge).
- 21j HALO-AVALANCHE <sup>TM</sup> (flame, avalanche shovel/fantasy knife with both radius edge and a sharpenable edge).

Fig AOK is a “P.T.O.O.G.” H.A.L.O. HYBIRD <sup>TM</sup> perspective illustration side elevational view, with “phantom” hand multitasking secondary “phantom” matter.

Each of the aforementioned embodiments is designed to become a “perfectly balanced”, “self truing”, “intuitive integral extension” of the human hand. Additionally, each design intuitively orients itself properly to a users hand and facilitates a full and complete range of motion which of course encourages the multitasking of secondary matter.

These current preferred embodiments presented may be scaled to accomodate any size hand, and may be modified to accomodate any number of applications, environments and user preferences.

Furthermore, by combining the information provided within the enclosed summary, illustrated embodiments and claims, anyone skilled in the art will be readily able to manufacture and utilize the techknowledge herein presented by employing simple common hand tools, readily available common materials and a small measure of common sense.

And because the aforementioned embodiments are in a state of perpetual evolutionary development, no further description is possible or warranted...

**Therefore what is claimed is:**